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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,048	04/24/2006	Stefan Dengler	PNL21523	2323
77407 7590 06/15/2009 Novak Druce & Quigg LLP 1300 I Street NW Suite 1000 West Tower Washington, DC 20005				
EXAMINER				
CHANG, CHING				
ART UNIT		PAPER NUMBER		
3748				
MAIL DATE		DELIVERY MODE		
06/15/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/577,048

**Applicant(s)**

DENGLER, STEFAN

**Examiner**

CHING CHANG

**Art Unit**

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/9/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/9/09 has been entered. Claims 1-28 are cancelled, and new claims 29-38 are added as requested.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 29-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

More specifically, " means cooperable with an external component for selectively axially displacing said shaft, wherein each of said tracks differs from each of the other of said tracks " in claim 29, " the radius of the lobe of each of said tracks differs from the radius of each of the other of said tracks " in claim 30, " the radius of the lobe of said third track is greater than the radius of the lobe of said first track " in claim 31, " the

radius of the lobe of said fourth lobe is greater than the lobe of said second track " in claim 32, " wherein the lobe of said third track has a radius greater than the lobe of said first track " in claim 35, " wherein the lobe of said fourth track has a radius greater than the lobe of said second track " in claim 36, " wherein said means cooperable with an external component for axially displacing said shaft comprises at least one helical groove in said shaft receptive to an insertive member adapted to be displaced along a line of travel disposed parallel to the axis of said shaft " in claim 37, and " including a pair of said helical grooves, each disposed adjacent one of said cam elements " in claim 38 are new matter.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. ***Claims 29-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Phillips (US Patent 5,129,407).***

Phillips discloses a camshaft (10) of an internal combustion engine having at least one cylinder and two fuel inlet valves (20) for said cylinder comprising a shaft having a first, rigidly mounted cam element (one of 22, 24, 26, 28) provided with first and second peripheral tracks (two of 22a, 22b; 24a, 24b; 26a, 26b; 28a, 28b) engageable with one of said fuel inlet valves, each of said first and second tracks including a lobe, a second, rigidly mounted cam element (another one of 22, 24, 26, 28)

provided with third and fourth peripheral tracks (another two of 22a, 22b; 24a, 24b; 26a, 26b; 28a, 28b) engageable with the other of said fuel inlet valves, each of said third and fourth peripheral tracks including a lobe, and means (64, 66) cooperable with an external component (86) for selectively axially displacing said shaft, wherein each of said tracks differs from each of the other of said tracks; wherein the radius of the lobe of each of said tracks differs from the radius of each of the other of said tracks; wherein the radius of the lobe of said third track is greater than the radius of the lobe of said first track; wherein the radius of the lobe of said fourth lobe is greater than the lobe of said second track; wherein the lobe of said third track is angularly displaced relative to the lobe of said first track, relative to the axis of said shaft; wherein the lobe of said fourth track is angularly displaced relative to the lobe of said second track, relative to the axis of said shaft; wherein the lobe of said third track has a radius greater than the lobe of said first track and is angularly displaced relative to the lobe of said first track, relative to the axis of said shaft; wherein the lobe of said fourth track has a radius greater than the lobe of said second track and is angularly displaced relative to the lobe of said second track, relative to the axis of said shaft; wherein said means cooperable with an external component for axially displacing said shaft comprises at least one helical groove in said shaft receptive to an insertive member (54) adapted to be displaced along a line of travel disposed parallel to the axis of said shaft; a pair of said helical grooves, each disposed adjacent one of said cam elements.

5. ***Claims 29-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Vignery (BE '654, and recited in PCT/EP2004/011697 search report).***

Vignery discloses a camshaft (3) of an internal combustion engine having at least one cylinder and two fuel inlet valves (10) for said cylinder comprising a shaft having a first, rigidly mounted cam element provided with first and second peripheral tracks (7, 5) engageable with one of said fuel inlet valves, each of said first and second tracks including a lobe, a second, rigidly mounted cam element provided with third and fourth peripheral tracks (6, 4) engageable with the other of said fuel inlet valves, each of said third and fourth peripheral tracks including a lobe, and means (16, 18; 33, 36) cooperable with an external component (23, 20) for selectively axially displacing said shaft, wherein each of said tracks differs from each of the other of said tracks; wherein the radius of the lobe of each of said tracks differs from the radius of each of the other of said tracks; wherein the radius of the lobe of said third track is greater than the radius of the lobe of said first track; wherein the radius of the lobe of said fourth lobe is greater than the lobe of said second track; wherein the lobe of said third track is angularly displaced relative to the lobe of said first track, relative to the axis of said shaft; wherein the lobe of said fourth track is angularly displaced relative to the lobe of said second track, relative to the axis of said shaft; wherein the lobe of said third track has a radius greater than the lobe of said first track and is angularly displaced relative to the lobe of said first track, relative to the axis of said shaft; wherein the lobe of said fourth track has a radius greater than the lobe of said second track and is angularly displaced relative to the lobe of said second track, relative to the axis of said shaft; wherein said means cooperable with an external component for axially displacing said shaft comprises at least one helical groove in said shaft receptive to an insertive member (23, 20) adapted

to be displaced along a line of travel disposed parallel to the axis of said shaft; a pair of said helical grooves, each disposed adjacent one of said cam elements.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHING CHANG whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ching Chang/  
Primary Examiner, Art Unit 3748